At the end of page 30, line 39, insert the following text:

--Return electrode 56 is preferably formed from an electrically conductive material, usually metal, which is selected from the group consisting of stainless steel alloys, platinum or its alloys, titanium or its alloys, molybdenum or its alloys, and nickel or its alloys. The return electrode 56 may be composed of the same metal or alloy which forms the electrode terminals 58 to minimize any potential for corrosion or the generation of electrochemical potentials due to the presence of dissimilar metals contained within an electrically conductive fluid 50, such as isotonic saline (discussed in greater detail below).

A6

As shown in Fig. 2A, return electrode 56 is not directly connected to electrode terminals 58. To complete this current path so that terminals 58 are electrically connected to return electrode 56 via target tissue 52, electrically conducting liquid 50 (e.g., isotonic saline) is caused to flow along liquid paths 83. A liquid path 83 is formed by annular gap 54 between outer return electrode 56 and tubular support member 78. An additional liquid path 83 may be formed between an inner lumen 57 within an inner tubular member 59. However, it is generally preferred to form the liquid path 83 near the perimeter of the probe so that the electrically conducting liquid tends to flow radially inward towards the target site 88 (this preferred embodiment is illustrated in Figs. 8-19). In the embodiment shown in Figs. 2-5, the liquid flowing through inner lumen 57 may tend to splash radially outward, drawing electrical current therewith and potentially causing damage to the surrounding tissue.

The electrically conducting liquid 50 flowing through fluid paths 83 provides a pathway for electrical current flow between target tissue 52 and return electrode 56, as illustrated by the current flux lines 60 in Fig. 2A. When a voltage difference is applied between electrode array 12 and return electrode 56, high electric field intensities will be generated at the distal tips of terminals 58 with current flow from array 12 through the target tissue to the return electrode, the high electric field intensities causing ablation of tissue 52 in zone 88.--

IN THE CLAIMS:

Please delete claims 1-79 and add the following new claims 80-109.

A

80. An electrosurgical system for smoothing body structures having an irregular surface:

an electrosurgical instrument having a shaft with a proximal end and a distal end;

an electrode terminal disposed at or near the distal end of the shaft;

a return electrode;

at least one connector disposed near the proximal end of the shaft for electrically coupling the electrode terminal to a high frequency voltage source; and

wherein the electrode terminal is sized and constructed to deliver sufficient energy to an irregular surface of a body structure to at least partially smooth the irregular surface of the body structure.

81. The system of claim 80 wherein the body structure comprises articular cartilage on the surface of a condyle.

82. The system of claim 80 wherein the electrode terminal is configured to deliver sufficient energy to smooth the irregular surface of the articular cartilage while minimizing the depth of ablation and necrosis in the articular cartilage.

83. The system of claim 80 wherein the return electrode is spaced from the electrode terminal such that when a portion of the electrode terminal is brought adjacent the irregular surface of the body structure immersed in electrically conductive fluid, the electrode terminal is positioned between the return electrode and the body structure and the electrically conductive fluid completes a conduction path between the electrode terminal and the return electrode.

84. The system of claim 80 wherein the return electrode is spaced about 0.5 to 25 mm from the electrode terminal in a direction away from the body structure when the electrode terminal is brought adjacent a tissue structure.

85. The system of claim 80 wherein the return electrode is positioned on the shaft proximal to the electrode terminal.

86. The system of claim 80 wherein the return electrode is a dispersive return pad configured for positioning on an external surface of the patient.

87. The system of claim 80 wherein the electrode terminal is configured to deliver sufficient energy to ablate at least a portion of cartilage strands on the irregular surface of the articular cartilage to smooth said surface.

88. The system of claim 80 wherein the electrode terminal is configured to deliver sufficient energy to heat at least a portion of cartilage strands on the irregular surface of the articular cartilage to smooth said surface.

89. The system of claim 80 wherein the electrode terminal comprises a single electrode disposed near the distal end of an instrument shaft.

90. The system of claim 80 wherein the electrode terminal includes an array of electrically isolated electrode terminals disposed near the distal end of an instrument shaft.

91. The system of claim 82 wherein the electrically conductive fluid has originated from an external source outside of the patient's body.

92. The system of claim 82 wherein the electrically conductive fluid comprises isotonic saline.

93. The system of claim 82 further comprising an electrically insulating support member at or near the distal end of the instrument shaft, wherein the electrode terminal is flush with a tissue treatment surface of the support member.

94. The system of claim 80 further comprising a fluid delivery element for delivering electrically conductive fluid to the electrode terminal.

95. The system of claim 93 wherein the fluid delivery element comprises a fluid lumen on the shaft of the instrument.

96. The system of claim 80 further comprising a high frequency voltage source coupled to the electrode terminal and the return electrode, the voltage source having an operating voltage between about 10 volts RMS and 1000 volts RMS.

97. The system of claim 80 wherein the electrode terminal is disposed over a lateral surface of an electrode support member near the distal end of the instrument shaft.

98. The system of claim 80 wherein the distal surface of the electrode terminal has a shape selected from the group consisting essentially of flat, concave, convex, hemispherical, pyramidal, conical and cylindrical.

99. The system of claim 80 further comprising a temperature sensor adjacent to the electrode terminal and electrically coupled to the high frequency voltage source for controlling power delivery to the electrode terminal based on temperature at the target site.

100. The system of claim 80 further comprising an electrically insulating support member having a tissue treatment surface at or near the distal end of the instrument shaft,

wherein the electrode terminal is recessed from the tissue treatment surface of the support member.

101. The system of claim 100 wherein the electrode terminal is recessed by at least 0.05 mm from the tissue treatment surface.

102. An electrosurgical system for smoothing body structures having an irregular surface:

an electrosurgical instrument having a shaft with a proximal end portion and a distal end portion;

an active electrode disposed at the distal end portion of the shaft;

a return electrode;

at least one connector disposed near the proximal end portion of the shaft for electrically coupling the active electrode to a high frequency power source; and

an electrically insulating member at the distal end of the shaft coupled to the active electrode, the electrically insulating member being configured to space the active electrode from the irregular surface of the body structure.

103. The system of claim 102 wherein the return electrode is positioned on the instrument and axially spaced from the active electrode.

104. The system of claim 102 wherein the return electrode comprises a dispersive return pad for positioning on an outer skin surface of the patient.

105. The system of claim 102 further comprising a temperature sensor on the distal end portion of the instrument for measuring a temperature at the temperature sensor.